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09/926713

216723US

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :

YASUJI HIRAMATSU : ATTN: APPLICATION DIVISION

SERIAL NO: 09/926,713 :

FILED: DECEMBER 6, 2001 :

FOR: CERAMIC HEATER

PRELIMINARY AMENDMENT

ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

SIR:

Prior to a first examination on the merits, please amend the above-identified application as follows:

IN THE CLAIMS

Please amend Claims 3-5 as follows:

3. (Amended) The ceramic heater according to claim 1,

wherein the opposite side to the face where said resistance heating element is formed of said ceramic substrate is a heating face.

4. (Amended) The ceramic heater according to claim 1,

wherein the thickness of said insulating layer is from 0.1 to 1000 μm .

5. (Amended) The ceramic heater according to claim 1,

wherein the volume resistivity of said insulating layer is not less than 10 times larger than the volume resistivity of said ceramic substrate.

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Please add new Claims 8-14 as follows:

8. (New) The ceramic heater according to claim 2,
wherein the opposite side to the face where said resistance heating element is formed
of said ceramic substrate is a heating face.
9. (New) The ceramic heater according to claim 2,
wherein the thickness of said insulating layer is from 0.1 to 1000 μm .
10. (New) The ceramic heater according to claim 3,
wherein the thickness of said insulating layer is from 0.1 to 1000 μm .
11. (New) The ceramic heater according to claim 8,
wherein the thickness of said insulating layer is from 0.1 to 1000 μm .
12. (New) The ceramic heater according to claim 2,
wherein the volume resistivity of said insulating layer is not less than 10 times larger
than the volume resistivity of said ceramic substrate.
13. (New) The ceramic heater according to claim 3,
wherein the volume resistivity of said insulating layer is not less than 10 times larger
than the volume resistivity of said ceramic substrate.
14. (New) The ceramic heater according to claim 8,
wherein the volume resistivity of said insulating layer is not less than 10 times larger
than the volume resistivity of said ceramic substrate.

IN THE ABSTRACT OF THE DISCLOSURE

Please amend the Abstract on page 26 as follows:

ABSTRACT

A ceramic heater making it possible to prevent a short circuit in its resistance heating element and heat a semiconductor wafer evenly. The ceramic heater includes a ceramic substrate, an insulating layer having volume resistivity higher than that of the ceramic substrate, being formed on at least a part of the ceramic substrate, and a resistance heating element formed on the insulating layer.

REMARKS

Favorable consideration of this application, as presently amended, is respectfully requested.

The present preliminary amendment is submitted to place the above-identified application in more proper format under United States practice.

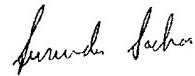
By the present preliminary amendment, the claims have been amended to no longer recite any improper multiple dependencies. Subject matter of the cancelled multiple dependencies is also now set forth in new dependent Claims 8-14.

The Abstract has also been amended by the present response to be in more proper format under United States practice.

The present application is believed to be in condition for a full and thorough examination on the merits. An early and favorable consideration of the present application is hereby respectfully requested.

Respectfully submitted,

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Serial No:
Amendment Filed on:
<u>3-5-02</u>

IN THE CLAIMS

- 3. (Amended) The ceramic heater according to claim 1 [or 2],
wherein the opposite side to the face where said resistance heating element is formed
of said ceramic substrate is a heating face.
4. (Amended) The ceramic heater according to [any of claims 1 to 3] claim 1,
wherein the thickness of said insulating layer is from 0.1 to 1000 μm .
5. (Amended) The ceramic heater according to [any of claims 1 to 3] claim 1,
wherein the volume resistivity of said insulating layer is not less than 10 times larger
than the volume resistivity of said ceramic substrate.--

Claims 8-14 (New).

IN THE ABSTRACT OF THE DISCLOSURE

--[An objective of the present invention is to provide a] A ceramic heater making it
possible to prevent a short circuit in its resistance heating element and heat a semiconductor
wafer evenly. The ceramic heater [of the present invention is a ceramic heater comprising:]
includes a ceramic substrate [;], an insulating layer having volume resistivity higher than
that of [said] the ceramic substrate, being formed on at least a part of [said] the ceramic
substrate [;], and a resistance heating element formed on [said] the insulating layer.--